

Intravenous vs Oral: The Fight Over Treating Complicated Pneumonia Continues

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Considerable debate exists regarding the preferred route of antibiotic therapy for children discharged from the hospital with complicated pneumonia

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Considerable debate exists regarding the preferred route of antibiotic therapy for children discharged from the hospital with complicated pneumonia. Prolonged courses of parenteral antibiotic therapy have traditionally been used for the treatment of children with parapneumonic effusions and empyema (termed complicated pneumonia).

While prolonged intravenous antimicrobial therapy via a PICC is recommended by some experts, others feel that oral therapy is equally effective. Critics for this approach cite concerns for high rates of treatment failure for children treated with oral antibiotics. However, there is a paucity of literature comparing these two approaches for the treatment of complicated pneumonia among children discharged from the hospital. Recent national guidelines published by the Infectious Diseases Societies of America do not directly address the preferred route of antibiotic administration.

A new article in *Pediatrics* from Shah et al. ([10.1542/peds.2016-1692](#)), investigators conducted an observational comparative effectiveness trial to examine the rate of treatment failure and other healthcare outcomes among children discharged on oral versus PICC antibiotic therapy for complicated pneumonia. The investigators augmented data obtained from the PHIS database with focused medical record review at 36 hospitals. In total, over two-thousand children with complicated pneumonia were included in this study.

Although PICC use was low overall, there was marked variation in the use of PICC lines across PHIS hospitals, mostly related to geographic region. Using a propensity-based matching approach, the authors evaluated whether differences existed between children treated oral versus via PICC in the following outcomes: 1) treatment failure, 2) PICC complications, 3) adverse drug reactions, and 4) other related revisits.

Read this month's article to provide the most up to date care for your next patient with complicated pneumonia.

Further Reading

- [Predicting Severe Pneumonia Outcomes in Children](#)
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